

MR.FROZEN DC 12/24V FREEZER

USER'S MANUAL

MECHANICAL TYPE

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1.Product Features

1.1 Mr.frozen use latest high performance DC compressor with excellent cooling performance, lower noise and small vibration. The cabinet is super thickness foaming insulation which is featuring excellent heat preservation and energy saving.

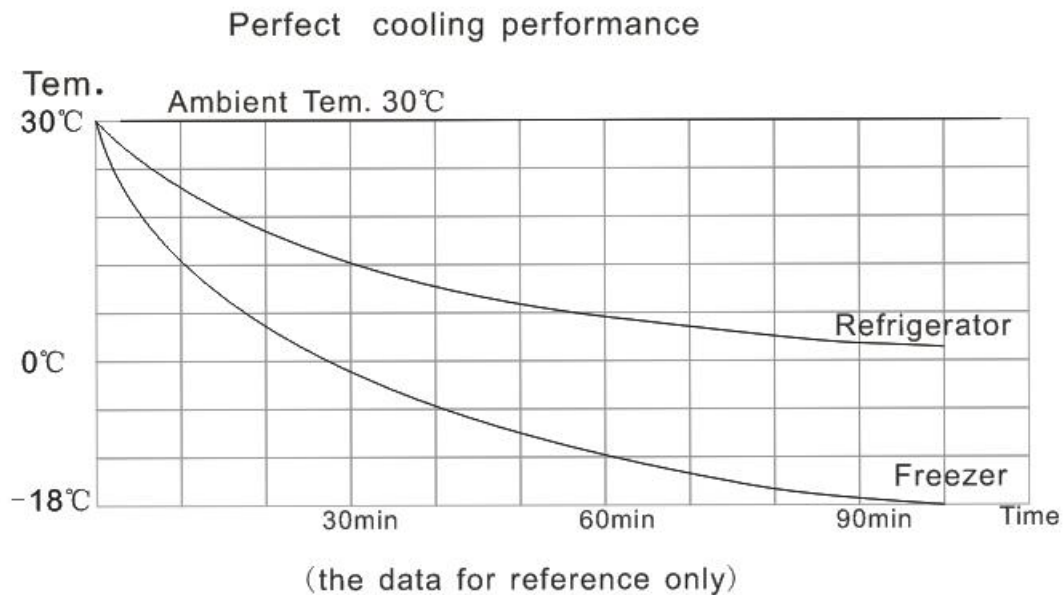
1.2 Microcomputer precise temperature control and indicate the temperature accurately inside. Easy to operate by pressing the button.

1.3 The compressor is the frequency conversion type. There are two options, one is Max mode that the compressor running in full speed, the other is Eco mode that the compressor running economically.

1.4 The freezers can be supplied by DC 12V/24V power source directly

1.5 The device is equipped with a three-lever battery voltage button (H/M/L) that protects your battery against excessive discharging when the device is connected to the battery in the solar power system or the battery alone. Generally buyer is suggested to set H when there is much power supply, and set L when the power supply is less.

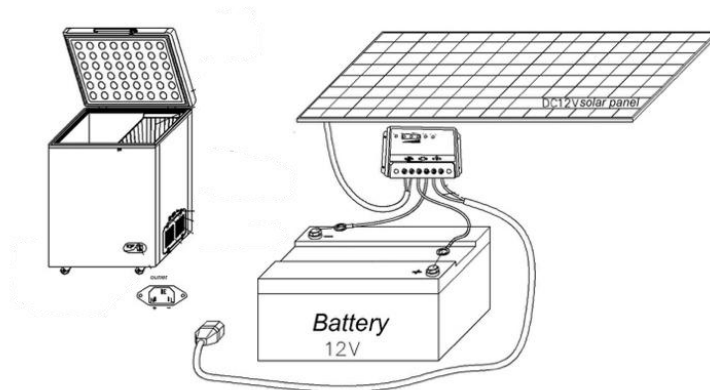
1.6 Cooling performance graph



2.Connection Schematic Diagram

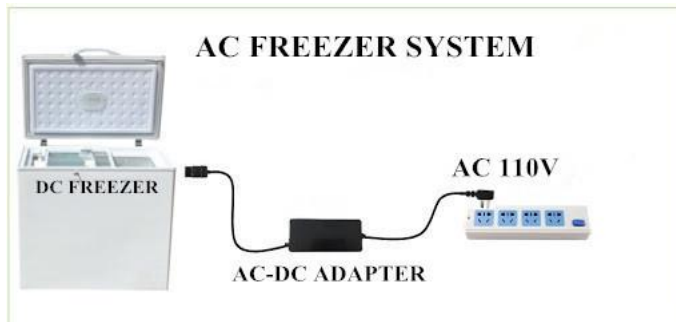
2.1

Solar Panel+Battery+Controller+ DC Freezer



Warning: Turn on the freezer after ensuring no reverse connection

2.2



3.Illustration

3.1 Cable size

12V Cable Length 24V Cable Length

Cross Setion		Max Length			
		12vdc		24vdc	
mm2	awg	Ft	m	Ft	m
2.5	12	---	--	3.2	1
4	11	3.2	1	6.5	2
6	9	4.8	1.5	9.8	3
10	7	8.2	2.5	16.4	5

3.2 Operating Voltage Fuse

Operating Voltage	Fuse
12V	20A
24V	15A

3.3 Structure Drawing



4. Operating Instruction

- 4.1 The inside temperature can be adjusted through the temperature control. The higher figure means the lower temperature. The normal place is between 3 and 4.
- 4.2 "1" knob refers to the refrigeration point and the storage temperature inside cabinet is about 0 °C . When the food needs be quickly frozen, turn the knob to "5" clockwise and at this moment, the compressor will work continuously.
- 4.3 After frozen, turn back the knob to the original position. Do not turn the temperature control knob clockwise from "5" to "1".

Note: memory of setting: the fridge with memory recovery function although it is powered off. It keeps memory of set temperature, cut-off voltage, Max/Eco mode and °C/°F readout.

Cut-off Voltage Data Sheet

Degree	12V cut-off voltage	12V recovery voltage	24V cut-off voltage	24V recovery voltage
L	10.0V	11V	21.6V	23.0V
M	10.7V	11.7V	22.6V	24.0V
H	11.5V	12.5V	24.6V	26.0V

Note: 1. Before connecting the unit to the power source, let it stand upright for approximately 2 hours. This will reduce the possibility of a malfunction in the cooling system from handling during transportation.

2. It is recommended to store the contents after the cabinet temperature below 0.

Defrost

Water vapor may ice on the inner cabinet. This will reduce the cooling performance of the fridge. It is necessary to defrost the freezer when the frost layer reaching to 5-7mm. Please follow up the steps as below.

1. Freezing the content at the lowest temperature for a period to prevent from melting during the power-off time.
2. Power off the freezer and take out of the content, then try to prevent from melting the content.
3. Open the door, and wipe off the frost layer when it is melting.
4. Dry the cabinet with a clean towel. Power on the freezer and take back the content.

Note: Don't use sharp items to defrost in order to avoid damaging the evaporator.

5. Trouble Shooting

1.No cooling function	If the voltage is normal?
	If the power cord connect well?
	If the adaptor connect well?
2.cooling effect is bad	If the product exposed to the sunlight or very close to heat source?
	If the compressor or condenser covered with dust?
	If the content inside of the product too much or there is hot content inside?
3.Non-stop for a long time	If the door seal is not good enough?
	If there is too much frost inside?
	If the ambient temperature is too high.
	If too much hot things put inside of the product.
4.Big noise from the product	If the floor is even and stable?If the product install evenly.
	If the back of the freezer very close to the wall.
5.Error indication	Err0:malfuntion of temperature sensor.
	Err1:over voltage or under voltage.
	Err2:big current on cooling fan.
	Err3:bad heat dissipation and lock-rotor of compressor.

The following issues are not trouble.

- 5.1. Sometimes there is frost on the surface of fridge caused by high ambient temperature or infrequent door opening. Buyers can wipe the frost off.
- 5.2. There is sound of water flow or water boiling which is the sound of refrigerant flowing normally.
- 5.3. When the freezer is working, compressor and condenser will heat, these are normal phenomenon.
- 5.4 The compressor will be working for a long time when storing too much food over heat.
- 5.5 The compressor will be working for a long time to keep the inner cabinet temperature when the ambient temperature is very high.

Notice: When the freezer got problems, please check by this manual first. If the problems still can not be resolved, please contact distributor or local service counter. Please do not disassemble without expert guide.

6.Knowledge of usage

- *Keep appropriate gap between stored items is conducive to the circulation of cold air and heat exchange the cooling performance will be better
- *Always cool the food or drink before storing them into the freezer.,
- *The freezer reboot after 5 minutes power-off time is necessary, otherwise it will affect the life of the compressor, or even damage the compressor.
- *Do not open the door more than necessary and longer to save energy
- *According to the needs of storage items to choose the appropriate temperature unnecessary freezing will cause power waste.
- *The temperature can be set lower before the expected black out, then the compressor accordingly working longer, meantime reduce the times of opening and closing freezer doors. Please avoid to open and close freezer doors frequently as well as put into more content during black-out period.

7.Clean and maintenance

- *Clean the freezer with a soft cloth moistened with lukewarm water.
- *Never use solvents or abrasive cleaners as this will damage the freezer Do not use scourers or scrapers to clean your freezer.
- *Use a soft dry cloth to completely dry the freezer after cleaning.
- *If the refrigerator is to be long-term disable should cut off the power and clean , open the door a few days in order to maintain internal dry.
- *Pay attention that no water drops into the vents as this maybe lead to damage to the electric components.
- * Check the following items after maintenance:
 1. If the DC plug is well positioned on the socket.
 2. If the DC plug is with over heat.
 3. If the DC power cord is with crack or scratch.

8.Product Specification

MR FROZEN BD/BC-108 3.3 Cu.ft	
Volume	3.3 Cu.ft [94 L]
Freezer	-0.4°F to 50°F
Input Voltage	12/24V
Refrigerant	R600a
Power Consumption	65W
Defrost	Manual
External dimensions	22-51/64 x 21-57/64 x 33-1/2 IN

MR FROZEN BD/BC-158 4.8 Cu.ft	
Volume	4.8 Cu.ft [136 L]
Freezer	-0.4°F to 50°F
Input Voltage	12/24V
Refrigerant	R600a
Power Consumption	70W
Defrost	Manual
External dimensions	29-1/2 x 21-57/64 x 33-1/2 IN

MR FROZEN BD/BC-208 6.2 Cu.ft	
Volume	6.2 Cu.ft [175 L]
Freezer	-0.4°F to 50°F
Input Voltage	12/24V
Refrigerant	R600a
Power Consumption	75W
Defrost	Manual
External dimensions	35-45/64 x 21-57/64 x 33-1/2 IN

MR FROZEN BD/BC-268 7.7 Cu.ft	
Volume	7.7 Cu.ft [218 L]
Freezer	-0.4°F to 50°F
Input Voltage	12/24V
Refrigerant	R600a
Power Consumption	84W
Defrost	Manual
External dimensions	42-13/64 x 22-1/2 x 33-45/64 IN

MR FROZEN BD/BC-358 11.6 Cu.ft	
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Volume	11.6 Cu.ft [328 L]
Freezer	-0.4°F to 50°F
Input Voltage	24V
Refrigerant	R600a
Power Consumption	125W
Defrost	Manual
External dimensions	50-5/11 x 23-13/32 x 34-27/32 IN

MR FROZEN BD/BC-508 16.8 Cu.ft	
Volume	16.8 Cu.ft [475 L]
Freezer	-0.4°F to 50°F
Input Voltage	24V
Refrigerant	R600a
Power Consumption	164W
Defrost	Manual
External dimensions	60-3/64 x 26-37/64 x 34-1/4 IN

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